

II. REMARKS

The Office Action dated May 16, 2008, has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto.

Claims 1-24 are pending.

By this Amendment, claim 1 is amended. Applicants submit that the amendments are supported by the originally filed specification and claims. For example, claim 1 has been amended to replace the word "containing" with "consisting of." Applicants submit that no new matter has been added and respectfully request reconsideration and withdrawal of the pending rejections.

Rejection over Zolotnitsky et al.

Claims 1-5, 7, 10-16, and 18-24 were rejected under 35 U.S.C. § 103(a) over Zolotnitsky et al. Applicants traverse the rejection.

Presently amended claim 1 is directed to "[f]oamable compositions consisting of: a) 50-99.9% by weight of a chlorotrifluoroethylene (CTFE) polymer consisting of at least 90% by moles of CTFE; B) 5-30% by weight of a nucleating agent; and C) optionally one or more thermal stabilizers, UV stabilizers, pigments, flame retardants, and reinforcing agents..." (emphasis added).

Before commenting on the present rejection, Applicants provide the following comments. Applicants submit that the technical problem of the present invention was to find fluoropolymer-based compositions that are easily prepared and transformed into

foamed coatings or articles having improved electrical insulation properties (see specification, page 3, lines 15-18).

Applicants have unexpectedly found that the above technical problem is solved by compositions of CTFE-based polymers (see Examples 1, 3, 4 and 5 of the present specification) using CTFE homopolymers or CTFE copolymers with nucleating agents, and without any foaming agent besides the nucleating agent. In addition, Applicants submit that foamable compositions of the present invention be used to obtain electric wire coating having a low dielectric constant and low $\tan \delta$ at high frequencies, and also electric wires and cables having a low attenuation, which is a property useful for applications such as optical fibers (see specification, page 2, lines 11-13, and page 8, lines 21-23).

In contrast to the presently claimed invention, Applicants submit that Zolotnitsky et al. discloses compositions comprising "ETFE or ECTFE fluoropolymers modified with hydrogenated monomers" (paragraphs [0017] and [0018]). Applicant submit that the ETFE or ECTFE fluoropolymers of Zolotnitsky et al. are not component A) of the present claims ("50-99.9% by weight of a chlorotrifluoroethylene (CTFE) polymer consisting of at least 90% by moles of CTFE").

Applicants further submit that the Polymist® used in Example 6 of Zolotnitsky et al. is not equivalent to the PTFE-based nucleating agent Polymist® FSA as a component B) of the present invention, because Polymist® is used in Zolotnitsky et al. as an optional filler ingredient (see paragraph [0046]).

Further, Applicants submit that Zolotnitsky et al. is directed to thermoplastic fluoropolymers having a high time to ignition and a low smoke and heat release when put in contact with a heat source (see paragraph [0001]).

Applicants submit that Zolotnitsky et al. does not mention foaming properties, such as % voids or average void sizes, which are reported in Example 1 of the present application. In particular, Example 1 of the present invention discloses an embodiment of the present invention which has 35% of voids and a obtained cell size of from 10 to 50 micron (see specification, page 12, lines 3-5). Example 6 of Zolotnitsky et al. discloses a powder Polymer A, which is defined in paragraph [0066] as containing ethylene 40% by moles, chlorotrifluoroethylene 55% by moles and n-butylacrylate 5% by moles. Therefore Applicants submit that Polymer A of Zolotnitsky et al. is not component A) of present claim 1, which is "50-99.9% by weight of a chlorotrifluoroethylene (CTFE) polymer consisting of at least 90% by moles of CTFE."

Applicants submit that one of ordinary skill in the art would not be guided to the presently claimed invention by the teachings of Zolotnitsky et al., as Zolotnitsky et al. does not teach or suggest how to find foamable polymer compositions having improved insulation properties. Applicants submit that Zolotnitsky et al. does not disclose that foamable compositions with improved electrical insulation can be obtained by using CTFE homopolymers or CTFE-copolymers with a selected class of comonomers, containing at least 90% by moles of CTFE and a nucleating agent, but without using any foaming agents.

Applicants further note that Table 2 of Zolotnitsky et al. shows that the mechanical properties of the compositions discussed in Example 6 (elastic modulus, stress at yield, elongation at yield, stress at break, and elongation at break) are those typical of a non-foamed material. In fact, Applicants submit that the properties disclosed in Example 6 are very similar to those of Example 5, which does not contain any Polymist® filler. Applicants submit that Examples 5 and 6 both disclose the same polymer defined in paragraph [0066], which contains ethylene 40% by moles, chlorotrifluoroethylene 55% by moles, and n-butylacrylate 5% by moles. Applicants note that Example 6 differs from Example 5, in that Example 6 discloses the addition of 1% of Polymist® and 2% of water-borne 3-aminopropyltriethoxyilane to silanize the other fillers present in the composition, before the addition of Polymist®.

Applicants submit that Table 2 of Zolotnitsky et al. shows that the mechanical properties of the compositions of Examples 5 and 6 are substantially the same. The only difference is in the time of ignition and peak heat release rate (see Table 1 of Zolotnitsky et al.). Therefore, Applicants submit that Example 5 is non-foamed, because it does not contain any foaming agents or nucleating agents. Accordingly, Applicants submit that Example 6 is also non-foamed. Furthermore, Applicants submit that the amount of 1% of Polymist® filler added to the polymer composition of the cited Example 6 of Zolotnitsky et al. is outside the range of “5-30% by weight of a nucleating agent” recited in present claim 1.

For at least the above reasons, Applicants submit that the presently claimed invention is patentable over Zolotnitsky et al. Applicants respectfully request

reconsideration and withdrawal of the rejection of claims 1-5, 7, 10-16, and 18-24 over Zolotnitsky et al.

Rejection over Zolotnitsky et al. and Abusleme et al.

Claims 1-5, 7, and 10-24 were rejected under 35 U.S.C. § 103(a) over Zolotnitsky et al., in combination with Abusleme et al. (U.S. Patent No. 6,107,393).

The presently claimed invention and Zolotnitsky et al. have been discussed above. Applicants submit that Abusleme et al. does not fulfill the deficiencies of Zolotnitsky et al.

Applicants submit that Abusleme et al. discloses thermoprocessable, fluorinated polymers comprising ethylene copolymers such as ECTFE for flexible cables (col. 1, lines 6-10). Applicants submit that the polymers disclosed in Abusleme et al. do not result in foamed articles or foamable compositions.

Applicants note again that neither Zolotnitsky et al. nor Abusleme et al. refer to foamable compositions. Further, Applicants submit that Zolotnitsky et al. and Abusleme et al. do not disclose "50-99.9% by weight of a chlorotrifluoroethylene (CTFE) polymer consisting of at least 90% by moles of CTFE" (present claim 1).

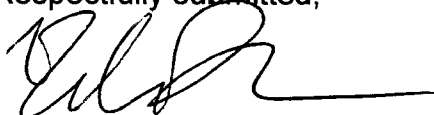
For at least the above reasons, Applicants submit that the presently claimed invention is patentable over Zolotnitsky et al. and Abusleme et al. Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-5, 7, and 10-24 over Zolotnitsky et al. and Abusleme et al.

III. CONCLUSION

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event that this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account Number 01-2300, referencing Docket Number 108910-00129.

Respectfully submitted,



Yelee Y. Kim

Registration Number 60,088

Customer Number 004372
ARENT FOX LLP
1050 Connecticut Avenue, NW, Suite 400
Washington, DC 20036-5339
Telephone: 202-857-6000
Fax: 202-857-6395

RJB/YYK:sab